

## CLAIMS

### WHAT IS CLAIMED IS:

1. An image processing device comprising:

a color-gamut determining part for determining a color gamut as a range of color  
5 distribution from input image data;

a color-space determining part for determining a color space substantially  
containing the color gamut determined by said color-gamut determining part; and

a color-space conversion part for converting the input image data into image data  
which is rendered in the determined color space.

10 2. The image processing device according to claim 1, wherein:

said color-gamut determining part divides the input image data into a plurality of  
image regions and calculates a hue and a chroma for each of the image regions to  
determine a maximum chroma for each of hues calculated; and

said color-space determining part selects a smallest color space from color spaces  
15 each having a maximum chroma equal to or higher than that of the input image data in all  
of the hues calculated by said color-gamut determining part.

3. The image processing device according to claim 2, wherein

said color-space conversion part transmits information on the color space  
determined by said color-space determining part to a destination to which the converted  
20 image data is output.

4. The image processing device according to claim 1, wherein:

said color-gamut determining part maps the input image data onto a chromaticity  
diagram; and

said color-space determining part selects a smallest color space from color spaces  
25 each containing a predetermined percentage or more of the color gamut of the input image

data on said chromaticity diagram.

5. The image processing device according to claim 4, wherein

said color-space conversion part transmits information on the color space determined by said color-space determining part to a destination to which the converted  
5 image data is output.

6. The image processing device according to claim 1, wherein

said color-space conversion part transmits information on the color space determined by said color-space determining part to a destination to which the converted image data is output.

10 7. An electronic camera comprising:

an image-capturing part for capturing an optical image formed with a shooting lens to create image data; and

the image processing device according to claim 1, for determining a range of color distribution of the created image data to determine a color space, and converting the  
15 created image data into image data which is rendered in the determined color space.

8. An image processing program for causing a computer to function as said color-gamut determining part, said color-space determining part, and said color-space conversion part according to claim 1.

9. An image processing program for causing a computer to function as said  
20 color-gamut determining part, said color-space determining part, and said color-space conversion part according to claim 2.

10. An image processing program for causing a computer to function as said color-gamut determining part, said color-space determining part, and said color-space conversion part according to claim 3.

25 11. An image processing program for causing a computer to function as said

color-gamut determining part, said color-space determining part, and said color-space conversion part according to claim 4.

12. An image processing program for causing a computer to function as said color-gamut determining part, said color-space determining part, and said color-space  
5 conversion part according to claim 5.

13. An image processing program for causing a computer to function as said color-gamut determining part, said color-space determining part, and said color-space conversion part according to claim 6.